

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. – 14. (Canceled)

15. (Currently Amended) An anastomosis connector system comprising a fitting comprising:
a base adapted for attachment to a graft,
a leading segment extending from said base and adapted for introduction into a host vessel;
a rear segment extending from said base, wherein said fitting has a length dimension extending from said leading segment to said rear segment and has a width dimension transverse to said length dimension, wherein said length dimension is greater than said width dimension; and
a hinge zone associated with said base and comprising at least one torsion member,
wherein by means of said at least one torsion member said rear segment is torsionally deflectable about said hinge zone relative to said base such that said fitting can be advanced into a host vessel and wherein, upon returning to a substantially undeflected position, said rear segment prohibits retraction of said fitting from the host vessel;
wherein said fitting comprises a plurality of interconnected links having spaces therebetween and adapted to engage the inner surface of the host vessel wherein the area of contact between the interconnected links and the inner surface area of the host vessel is no greater than about 35% of the total area of the fitting upon forming an anastomosis.

16. (Previously Presented) The system of claim 15 wherein at least said leading and rear segments are formed from said interconnected links.

17. (Previously Presented) The system of claim 16 wherein said fitting further comprises at least one lateral portion positioned between said leading segment and said rear segment, and said at least one lateral portion is formed from said interconnected links.

18. (Previously Presented) The system of claim 17 wherein said at least one lateral portion provides a smooth transition between said leading segment and said rear segment.

19. (Previously Presented) The system of claim 15 wherein said base and said rear segment are positioned relative to each other wherein said graft is positioned at an angle with said host vessel upon operative engagement of said fitting within said graft and said host vessel.

20. (Previously Presented) The system of claim 19 wherein said angle is in the range from about 20° to about 70°.

21. (Canceled)

22. (Canceled)

23. (Canceled)

24. (Previously Presented) The system of claim 15 wherein said leading segment has a rounded-toe configuration.

25. (Canceled)

26. (Canceled)

27. (Currently Amended) The system of claim ~~26~~ 53 wherein said fitting base comprises an opening and said collar comprises an opening wherein said fitting opening and said collar opening are complementary.

28. (Previously Presented) The system of claim 15 wherein said rear segment has an outwardly facing surface and an inwardly facing surface and further wherein at least a portion of said at least one torsion member faces said inwardly facing surface.

29. (New) An anastomosis connector system comprising a fitting comprising:
a base adapted for attachment to a graft,
a leading segment extending from said base and adapted for introduction into a host vessel;

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a rear segment extending from said base, wherein said fitting has a length dimension extending from said leading segment to said rear segment and has a width dimension transverse to said length dimension, wherein said fitting has a tubular configuration along said length dimension; and

a hinge zone associated with said base and comprising at least one torsion member,

wherein by means of said at least one torsion member said rear segment is torsionally deflectable about said hinge zone relative to said base such that said fitting can be advanced into a host vessel and wherein, upon returning to a substantially undeflected position, said rear segment prohibits retraction of said fitting from the host vessel;

wherein said fitting comprises a plurality of interconnected links having spaces therebetween and adapted to engage the inner surface of the host vessel wherein the area of contact between the interconnected links and the inner surface area of the host vessel is no greater than about 35% of the total area of the fitting upon forming an anastomosis.

30. (New) The system of claim 29 wherein at least said leading and rear segments are formed from said interconnected links.

31. (New) The system of claim 30 wherein said fitting further comprises at least one lateral portion positioned between said leading segment and said rear segment, and said at least one lateral portion is formed from said interconnected links.

32. (New) The system of claim 31 wherein said at least one lateral portion provides a smooth transition between said leading segment and said rear segment.

33. (New) The system of claim 29 wherein said base and said rear segment are positioned relative to each other wherein said graft is positioned at an angle with said host vessel upon operative engagement of said fitting within said graft and said host vessel.

34. (New) The system of claim 33 wherein said angle is in the range from about 20° to about 70°.

35. (New) The system of claim 29 wherein said leading segment has a rounded-toe configuration.

36. (New) The system of claim 29 wherein said rear segment has an outwardly facing surface and an inwardly facing surface and further wherein at least a portion of said at least one torsion member faces said inwardly facing surface.

37. (New) An anastomosis connector system comprising a fitting comprising:
a base adapted for attachment to a graft,
a leading segment extending from said base and adapted for introduction into a host vessel;
a rear segment extending from said base, wherein said fitting has a length dimension extending from said leading segment to said rear segment and has a width dimension transverse to said length dimension, wherein said fitting has an asymmetrical configuration about said width dimension; and
a hinge zone associated with said base and comprising at least one torsion member,
wherein by means of said at least one torsion member said rear segment is torsionally deflectable about said hinge zone relative to said base such that said fitting can be advanced into a host vessel and wherein, upon returning to a substantially undeflected position, said rear segment prohibits retraction of said fitting from the host vessel;
wherein said fitting comprises a plurality of interconnected links having spaces therebetween and adapted to engage the inner surface of the host vessel wherein the area of contact between the interconnected links and the inner surface area of the host vessel is no greater than about 35% of the total area of the fitting upon forming an anastomosis.

38. (New) The system of claim 37 wherein at least said leading and rear segments are formed from said interconnected links.

39. (New) The system of claim 38 wherein said fitting further comprises at least one lateral portion positioned between said leading segment and said rear segment, and said at least one lateral portion is formed from said interconnected links.

40. (New) The system of claim 39 wherein said at least one lateral portion provides a smooth transition between said leading segment and said rear segment.

41. (New) The system of claim 37 wherein said base and said rear segment are positioned relative to each other wherein said graft is positioned at an angle with said host vessel upon operative engagement of said fitting within said graft and said host vessel.

42. (New) The system of claim 41 wherein said angle is in the range from about 20° to about 70°.

43. (New) The system of claim 37 wherein said leading segment has a rounded-toe configuration.

44. (New) The system of claim 37 wherein said rear segment has an outwardly facing surface and an inwardly facing surface and further wherein at least a portion of said at least one torsion member faces said inwardly facing surface.

45. (New) An anastomosis connector system comprising a fitting comprising:
a base adapted for attachment to a graft, wherein said base defines an ovalized opening;
a leading segment extending from said base and adapted for introduction into a host vessel;
a rear segment extending from said base; and
a hinge zone associated with said base and comprising at least one torsion member,
wherein by means of said at least one torsion member said rear segment is torsionally deflectable about said hinge zone relative to said base such that said fitting can be advanced into a host vessel and wherein, upon returning to a substantially undeflected position, said rear segment prohibits retraction of said fitting from the host vessel;

wherein said fitting comprises a plurality of interconnected links having spaces therebetween and adapted to engage the inner surface of the host vessel wherein the area of contact between the interconnected links and the inner surface area of the host vessel is no greater than about 35% of the total area of the fitting upon forming an anastomosis.

46. (New) The system of claim 45 wherein at least said leading and rear segments are formed from said interconnected links.

47. (New) The system of claim 46 wherein said fitting further comprises at least one lateral portion positioned between said leading segment and said rear segment, and said at least one lateral portion is formed from said interconnected links.

48. (New) The system of claim 47 wherein said at least one lateral portion provides a smooth transition between said leading segment and said rear segment.

49. (New) The system of claim 45 wherein said base and said rear segment are positioned relative to each other wherein said graft is positioned at an angle with said host vessel upon operative engagement of said fitting within said graft and said host vessel.

50. (New) The system of claim 49 wherein said angle is in the range from about 20° to about 70°.

51. (New) The system of claim 45 wherein said leading segment has a rounded-toe configuration.

52. (New) The system of claim 45 wherein said rear segment has an outwardly facing surface and an inwardly facing surface and further wherein at least a portion of said at least one torsion member faces said inwardly facing surface.

53. (New) An anastomosis connector system comprising:
a fitting comprising:

- a base adapted for attachment to a graft;
- a leading segment extending from said base and adapted for introduction into a host vessel;
- a rear segment extending from said base; and
- a hinge zone associated with said base and comprising at least one torsion member,

wherein by means of said at least one torsion member said rear segment is torsionally deflectable about said hinge zone relative to said base such that said fitting can be advanced into a host vessel and wherein, upon returning to a substantially undeflected position, said rear segment prohibits retraction of said fitting from the host vessel;

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wherein said fitting comprises a plurality of interconnected links having spaces therebetween and adapted to engage the inner surface of the host vessel wherein the area of contact between the interconnected links and the inner surface area of the host vessel is no greater than about 35% of the total area of the fitting upon forming an anastomosis; and a collar adapted for interfacing with said fitting external to said graft.